

## CLAIMS

What is claimed is:

1    1. A method of displaying a standard definition television signal on a high definition  
2    matrix display, comprising the steps of:  
3                 receiving the standard definition television signal to provide a received  
4    signal;

5                 sampling the received signal to provide a sampled digital video signal;  
6                 deinterlacing the sampled digital video signal to provide a progressive  
7    line signal;  
8                 doubling the progressive line signal to provide a predetermined  
9    number of active lines of video in a frame; and  
10                displaying the predetermined number of active lines of video on the  
11    high definition matrix display in a shortened vertical interval.

1    2. The method of claim 1, where the method further comprises the step of storing  
2    the progressive line signal into a memory before the step of doubling.

1    3. The method of claim 1, wherein the step of doubling comprises the step of  
2    reading each line of the progressive line signal twice from the memory to produce a  
3    standard 960p signal, wherein the progressive line signal is a 480p signal.

1    4. The method of claim 2, wherein the method further comprises the step of reading  
2    each line of the progressive line signal twice from the memory at a speed fast  
3    enough to produce the doubling of each line of the progressive line signal in the  
4    frame and to transmit the frame to the display in a shorter interval than was used to  
5    write the progressive line signal to the memory.

1    5. The method of claim 4, wherein the shorter interval compensates for the  
2    transmission of black lines transmitted at the top and bottom of the display.

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1 6. The method of claim 1, wherein the method further comprises the steps of writing  
2 the signal corresponding to the predetermined number of active lines of video into a  
3 memory and reading out the predetermined number of active lines of video from the  
4 memory in a shorter time interval than was used to write the signal corresponding to  
5 the predetermined number of active lines of video into the memory.

1 7. The method of claim 6, wherein the signal corresponding to the predetermined  
2 number of active lines is a 960p frame which is read out of the memory and  
3 transmitted to the display in approximately 88% of a vertical period.

1 8. A method of displaying a standard definition television signal on a high definition  
2 matrix display, comprising the steps of:

3 receiving the standard definition television signal to provide a received  
4 signal;

5 sampling the received signal to provide a sampled digital video signal;  
6 deinterlacing the sampled digital video signal to provide a progressive  
7 line signal;

8 doubling the progressive line signal to provide a predetermined  
9 number of active lines of video in a frame;

10 storing the frame containing the predetermined number of active lines  
11 in a memory; and

12 reading the frame from memory and transmitting it to the high  
13 definition matrix display in a shortened vertical interval.

1 9. The method of claim 8, wherein the shortened vertical interval is  
2 approximately 88% of a vertical interval.

1 10. The method of claim 8, wherein the step of doubling comprises the step of  
2 repeating each line of the progressive line signal to produce a standard 960p signal,  
3 wherein the progressive line signal is a 480p signal.

1 11. The method of claim 8, wherein step of storing the frame, comprises the step of  
2 storing a 960p signal into the memory.

1 12. The method of claim 8, wherein the shorter interval compensates for the  
2 transmission of black lines transmitted at the top and bottom of the display.

1 13. The method of claim 8, wherein the signal corresponding to the predetermined  
2 number of active lines is a 960p frame which is read out of the memory and  
3 transmitted to the display in approximately 88% of a vertical interval.

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